



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

FEB 05 2016

CERTIFIED MAIL #7009 1680 0000 7648 7412
RETURN RECEIPT REQUESTED

Mr. Curtis Dickinson
Facility and Equipment Manager
Epiworks, Inc.
1606 Rion Drive
Champaign, Illinois 61822

Re: Notice of Violation
RCRA Compliance Evaluation Inspection – Epiworks, Inc.
EPA ID No.: ILR 000 103 317

Dear Mr. Dickinson:

On November 20, 2015 a representative of the U.S. Environmental Protection Agency inspected the Epiworks, Inc. (Epiworks) facility, located in Champaign, Illinois. As a large quantity generator of hazardous waste, Epiworks is subject to the Resource Conservation and Recovery Act (RCRA); 42 U.S.C. § 6901 *et seq.* (RCRA). The purpose of the inspection was to evaluate Epiwork's compliance with certain provisions of RCRA and its implementing regulations related to the generation, treatment and storage of hazardous waste. A copy of the inspection report is enclosed for your reference.

Based on information provided by Epiworks, EPA's review of records pertaining to Epiworks, and the inspector's observations, EPA has determined that Epiworks has unlawfully stored hazardous waste without a permit or interim status as a result of Epiwork's failure to comply with certain conditions for a permit exemption under Ill. Admin. Code tit. 35 § 722.134(a)-(c) [40 CFR 262.34(a)-(c)]. EPA has identified the permit exemption conditions with which Epiworks was out of compliance at the time of the inspection in paragraphs 1 through 9, below.

Many of the conditions for the RCRA permit exemption are also independent requirements that apply to permitted and interim status hazardous waste management facilities that treat, store, or dispose of hazardous waste (TSD requirements). When a hazardous waste generator loses its

permit exemption due to failure to comply with an exemption condition incorporated from Ill. Admin. Code tit. 35 Part 725, the generator: (a) becomes an operator of a hazardous waste storage facility; and (b) simultaneously violates the corresponding TSD requirements. The exemption conditions identified in paragraphs 1- 9 are also independent TSD requirement incorporated from Ill. Admin. Code tit. 35 Part 725. Accordingly, each failure of Epiworks to comply with these conditions is also a violation of the corresponding requirement in Ill. Admin. Code tit. 35 Part 724 [40 CFR Part 264] (if the facility should have been permitted).

STORAGE OF HAZARDOUS WASTE WITHOUT A PERMIT OR INTERIM STATUS AND VIOLATIONS OF TSD REQUIREMENTS

At the time of the inspection, Epiworks was out of compliance with the following large quantity generator permit exemption conditions:

The permit exemption conditions identified below in paragraphs 1 through 5, and 8, are independent TSD requirements violated by Epiworks.

Training

1. A large quantity generator of hazardous waste must have a program of classroom instruction or on-the-job training that teaches facility personnel to perform their duties in a way that ensures the facility's compliance with requirements of RCRA. This program must be directed by a person trained in hazardous waste management procedures, and must include instruction that teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed. *See* Ill. Admin. Code tit. 35 §§ 722.134(a)(4) and 725.116(a) [40 C.F.R. §§ 262.34(a)(4) and 265.16(a)]. Facility personnel must successfully complete this training program within six months after the date of their employment or assignment to a facility or to a new position at a facility, and must take part in an annual review of this initial training thereafter. *See* Ill. Admin. Code tit. 35 §§ 722.134(a)(4) and 725.116(b) and (c) [40 C.F.R. §§ 262.34(a)(4) and 265.16(b) and (c)].

With respect to this training program, a large quantity generator must maintain the following documents and records at its facility:

- 1) The job title for each position at the facility related to hazardous waste management and the name of the employee filling each job;
- 2) A written job description for each position at the facility related to hazardous waste management;

3) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position at the facility related to hazardous waste management; and

4) Records that document that the training or job experience described above has been given to and completed by facility personnel. *See* Ill. Admin. Code tit. 35 §§ 722.134(a)(4) and 725.116(d) [40 C.F.R. §§ 262.34(a)(4) and 265.16(d)].

At the time of the inspection, Epiworks was unable to provide the job title for each position at the facility related to hazardous waste management and the name of the employee filling each job;

At the time of the inspection, Epiworks, was unable to provide a written job description for each position at the facility related to hazardous waste management;

At the time of the inspection, Epiworks was unable to provide a written description of the type and amount of both introductory and continuing training that will be given to each person filling a position at the facility related to hazardous waste management; and

At the time of the inspection, Epiworks was unable to provide records that document that the training or job experience described above has been given to and completed by facility personnel.

Contingency Plan

2. In order to avoid the need for a hazardous waste storage permit, a large quantity generator must submit a copy of its contingency plan and revisions to the plan to the local police department, fire department, hospital and state and local emergency response teams that may be called upon to provide emergency services. *See* Ill. Admin. Code tit. 35 §§ 722.134(a)(4) and 725.153(b) [40 C.F.R. §§ 262.34(a)(4) and 265.53(b)].

At the time of the inspection, Epiworks had not submitted a copy of the facility contingency plan to the local hospital, police and fire departments that may be called upon to provide emergency services.

3. In order to avoid the need for a hazardous waste storage permit, a large quantity generator's contingency plan must describe arrangements agreed to by local fire and police departments, hospitals, contractors and state and local emergency response teams to coordinate emergency services. *See* Ill. Admin. Code tit. 35 §§ 722.134(a)(4) and 725.152(c) [40 C.F.R. §§ 262.34(a)(4) and 265.52].

At the time of the inspection, Epiworks' contingency plan did not describe arrangements agreed to by local fire and police departments, hospitals, contractors and state and local emergency response teams.

4. In order to avoid the need for a hazardous waste storage permit, a large quantity generator's written contingency plan must include, among other things, the names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator. See Ill. Admin. Code tit. 35 §§ 722.134(a)(4) and 725.152 (d) [40 CFR §§ 262.34(a)(4) and 265.52(d)].

At the time of the inspection, Epiworks' contingency plan did not designate a specific person as the primary emergency coordinator nor did it include the primary or alternate coordinators home addresses, and phone numbers (office and home).

5. In order to avoid the need for a hazardous waste storage permit, a large quantity generator's contingency plan must identify all emergency equipment including description, capability and location. See Ill. Admin. Code tit. 35 §§ 722.134(a)(4) and 725.152(e) [40 C.F.R. §§ 262.34(a)(4) and 265.52(e)].

At the time of the inspection, Epiworks' contingency plan did not identify all emergency equipment including description, capability and location.

Date When Each Period of Accumulation Begins

6. In order to avoid the need for a hazardous waste storage permit, a large quantity generator must clearly mark each container holding hazardous waste with the date upon which each period of accumulation begins. See, IAC Ill. Admin. Code tit. 35 §§722.134(a)(2) [40 CFR § 262.34(a)(2)].

At the time of the inspection, three 55-gallon containers of copper sulfate waste and one 55-gallon container of arsenic solid waste were not marked with the date upon which the period of accumulation of hazardous waste began.

Marking/Identification Requirements

7. A large quantity generator of hazardous waste must label or mark clearly each container holding hazardous waste with the words "Hazardous Waste." See Ill. Admin. Code tit. 35 §722.134 (a)(3) [40 CFR § 262.34(a)(3)].

At the time of the inspection, Epiwork did not mark the following containers and tanks with the words, "Hazardous Waste."

- three unlabeled 55-gallon containers of copper sulfate waste and one unlabeled 55-gallon container of arsenic solid waste, located in the 90 day hazardous waste storage area.
- one unlabeled 400-gallon, three 225-gallon and one 150-gallon bulk storage tanks.

Tank Systems

8. In order to avoid the need for a hazardous waste storage permit, a large quantity generator using a tank to accumulate hazardous waste must obtain a written assessment of the tank's integrity and must provide adequate secondary containment. See Ill. Admin. Code tit. 35 §722.134 (a)(1)(B) and 725.292(a) [40 CFR §§ 262.34(a)(1)(ii), 265.192(a)].

At the time of the inspection, Epiworks indicated that it had not obtained written assessments of the integrity of its five hazardous waste bulk storage tanks.

Record Keeping and Reporting

9. In order to avoid the need for a hazardous waste storage permit, a large quantity generator who ships any hazardous waste off-site to a treatment, storage or disposal facility within the United States must prepare and submit a single copy of a Biennial Report to the Illinois Environmental Protection Agency by March 1 of each calendar year. See Ill. Admin. Code tit. 35 §722.141 (a) [40 CFR § 262.41(a)].

At the time of the inspection, Epiworks indicated that it had have never submitted biennial reports to the Illinois Environmental Protection Agency.

Summary: By failing to comply with the conditions for a permit exemption, above, Epiworks became an operator of a hazardous waste storage facility, and was required to obtain an Illinois hazardous waste storage permit. Epiworks failed to apply for such a permit. Epiworks's failure to apply for and obtain a hazardous waste storage permit violated Ill. Admin. Code tit. 35 §§703.121(a) and (b); 703.180(c); and 705.121(a) [40 CFR §§ 270.1(c), and 270.10(a) and (d)].

OTHER VIOLATIONS

Epiworks violated the following used oil and universal waste generator requirements:

Used Oil

10. A person who stores used oil in containers and tanks must ensure that the containers and above-ground tanks are labeled or marked clearly with the words, "Used Oil." See Ill. Admin. Code 35 § 739.122 (c)(1) [40 CFR § 279.22 (c)(1)].

At the time of the inspection, the EPA inspector observed a container of used oil labeled "Waste Oil" instead of "Used Oil."

Universal Waste Requirement

11. A small quantity handler of universal waste must manage any lamps in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions. See Ill. Admin. Code 35 § 733.13(d)(1) [40 CFR § 273.113 (d)(1)],

At the time of the inspection, Epiworks was storing waste lamps in open containers as well as without an adequate container or package.

12. A small quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste. See Ill. Admin. Code 35 § 733.114(e) [40 CFR § 273.14(e)]. Each lamp or container or package in which such lamps are contained must be labeled or clearly marked with one of the following phrases: "Universal Waste Lamps," "Waste Lamps," or "Used Lamps."

At the time of the inspection, Epiworks was storing waste lamps without any of the above phrases.

During the inspection, as observed by EPA, and after the inspection, as documented in a December 10, 2015 email to EPA, you took certain actions to establish compliance with violation numbers 10, 11 and 12.

According to Section 3008(a) of the RCRA, EPA may issue an order assessing a civil penalty for any past or current violation, requiring compliance immediately or within a specified time period, or both. Although this letter is not such an order, or a request for information under Section 3007 of RCRA, 42 U.S.C. CFR § 6927, we request that you submit a response in writing to us no later than thirty (30) days after receipt of this letter documenting the actions, if any, you have taken related to violations 1 through 9.

You should submit your response to Sheila Burrus, U.S. Environmental Protection Agency, Region 5, 77 W. Jackson Boulevard, LR-8J, Chicago, Illinois 60604.

If you have any questions regarding this letter, please contact Ms. Sheila Burrus, of my staff, at (312) 886-3587.

Sincerely,



Margaret M. Guerriero

Director

Land and Chemicals Division

Enclosure

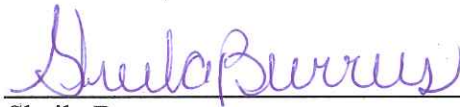
cc: Todd Marvel, Illinois EPA (todd.marvel@illinois.gov)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 W. JACKSON BOULEVARD
CHICAGO, IL 60604

COMPLIANCE EVALUATION INSPECTION REPORT

INSTALLATION NAME: Epiworks, Inc.
U.S. EPA ID. No.: ILR 000 103 317
LOCATION ADDRESS: 1606 Rion Drive
Champaign, Illinois 61822
DATE OF INSPECTION: November 20, 2015
U.S. EPA INSPECTORS: Sheila Burrus, RCRA Hazardous Waste

PREPARED BY:



Sheila Burrus
Environmental Protection Specialist

12/21/15

Date:

APPROVED BY:



Michael Cunningham, Chief
Compliance Section 1
RCRA Branch
Land and Chemicals Division

12/21/15

Date:

Purpose of Inspection

The purpose of the inspection was to conduct an unannounced compliance evaluation inspection (CEI) at Epiworks, Inc. (Epiworks) located at 1606 Rion Drive, Champaign, Illinois, to evaluate Epiworks compliance with certain provisions of the Resource Conservation and Recovery Act (RCRA); specifically, those regulations related to the management of hazardous and universal waste and used oil.

Participants: Curtis Dickinson represented Epiworks. Sheila Burrus represented EPA Region 5.

Installation Description/Background

Epiworks is a semiconductor fabrication facility.

Processes and waste generation take place within “clean” rooms where chemicals and waste generation are monitored by the closed system.

Personnel in clean rooms 1 and 2 are responsible for transferring generated arsenic, solvent and acid contaminated solid wastes (filters, gloves, wipes, etc.) into labeled 15-gallon satellite accumulation containers located in the hallway outside the clean rooms. The above waste containers are then transferred to individual 55-gallon satellite accumulation containers located in building 1604 near the less than 90-day hazardous waste storage area. It takes approximately 2 weeks to 2 months to fill the 55-gallon containers.

Process:

Single crystal substrates are loaded into a metal organic vapor deposition reactor. One or more layers of various chemical compositions are deposited (grown) on the surface of the substrate through chemical vapor deposition.

Exhaust gases go through dry resin (scrubbers) canisters where copper-based resin absorbs the arsine and phosphine and other reaction by-products. The spent canisters contain mainly arsenic trioxide.

The process of wet chemical etching generates aqueous waste (acidic). About 100 gallon a day of acidic waste liquid goes into a sump that is monitored for temperature and pH before being released into the city sanitary system.

Epiworks has one less than 90-day hazardous waste storage area located in building 1604 (shop area). The satellite accumulation areas are located in building 1604 and building 1606 (clean rooms).

Epiworks has five bulk storage tanks which were installed on-site in February 2014.

Epiworks was last inspected by the Illinois Environmental Protection Agency on August 12, 2011.

A review of hazardous waste manifests and waste volume on-site indicates that Epiworks has been operating as a large quantity generator.

Waste Generation

Epiworks' primary hazardous waste stream (50 percent) is arsenic contaminated acidic aqueous waste (liquid) generated from equipment cleaning. The facility also generates (25 percent) acidic aqueous waste with copper sulfate and arsenic from neutralizing arsenic and phosphorus contaminated equipment. The remaining (25 percent) waste generation is from the fabrication process and production process.

Epiworks generates used oil from maintenance operations of its vacuum pumps. Mr. Dickinson stated that the used oil is mixed with the solvent hazardous waste prior to being shipped off-site as solvent waste.

Epiworks also generates used batteries and waste lamps. The batteries are taken to Interstate batteries for disposal. Mr. Dickinson stated that Epiworks replaced ninety-five percent of its fluorescent lighting with LED's in 2014 although there remains a small number of fluorescent lights in use.

Opening Conference

I arrived at Epiworks at 8:10 a.m. on November 20, 2015. I introduced myself and presented my enforcement credentials to personnel at the receptionist desk and explained my visit. When Curtis Dickinson arrived at the receptionist desk to assist me, I presented my enforcement officer credentials to him and explained that I was there to conduct a compliance evaluation inspection.

We then proceeded into a conference room where I explained to Mr. Dickinson that I would be conducting a compliance evaluation inspection that included a visual site inspection and records review. I then proceeded to conduct the opening conference by explaining what specific records I would need to review.

I informed Mr. Dickinson that Epiworks could claim any information gathered during the inspection as Confidential Business Information (CBI) including: verbal communication, documents, and photographs. Epiworks did not make a CBI claim on the information gathered during the inspection.

I asked Mr. Dickinson for a brief description of the type of work done at this installation and types of wastes generated. Mr. Dickinson began to provide background and waste stream information about Epiworks which is included above in the installation description/background section of this report.

I provided a Small Business Resource Information Sheet, the U.S. EPA – Region 5 Pollution Prevention State Contact list, Illinois Waste Management Research Sustainable Solutions Brochure and the U.S. EPA Managing Used Oil Advice for Small Business brochure.

I continued the opening conference by asking who picks up Epiworks' hazardous waste. Mr. Dickinson indicated that Biodine Environmental Services picks up its hazardous waste and transfers all of its hazardous waste except its arsenic contaminated aqueous waste to Tradebe Treatment and Recycling located in East Chicago, Indiana for disposal. I was informed on December 17, 2015 that the arsenic contaminated waste is transferred to EQ Illinois located in Harvey, Illinois.

I began the CEI by conducting the records review portion of the inspection.

Records Review

I began the records review portion of the inspection with the assistance of Mr. Dickinson. I requested hazardous waste manifests, land disposal restriction forms, waste analysis data, hazardous waste training records, biennial reports, the contingency plan and weekly inspection logs for the hazardous waste storage.

My observations are categorized below:

Contingency plan

Epiworks' contingency plan did not designate a specific person as the primary and alternate emergency coordinators nor their home addresses and phone numbers.

Epiworks was unable to provide documentation showing that a copy of the contingency plan had been sent to the local emergency authorities.

Epiworks' contingency plan does not describe arrangements with local emergency authorities.

Epiworks' contingency plan does not identify emergency equipment.

Manifests

I reviewed manifest records for the years 2012 through 2014 and found them to be complete.

Weekly Inspection Logs

Epiworks was unable to provide for review weekly inspection logs for the years of 2012, 2013 and 2014. Mr. Dickinson stated that daily inspections are performed, just not documented.

Training Records/Job Descriptions

Employees working in the clean room are responsible for the collection of arsenic, solvent and acid contaminated solid waste. Mr. Dickinson stated that he provided the initial hazardous waste training to the employees but did not provide the required continuous training.

Epiworks was unable to provide documentation showing that facility personnel completed a hazardous waste training program within six months after the effective date of their employment or assignment and took part in an annual review of their initial training.

Mr. Dickinson stated that he has been employed by Epiworks for 15 years and has never received any type of hazardous waste training.

Epiworks was unable to provide for review job descriptions for its employees that handle and/or manage hazardous waste.

Biennial Reports

Epiworks was unable to provide for review biennial reports for the last 3 years.

Waste Analysis Reports

I reviewed waste analysis profile sheets for the following generated waste: waste flammable liquid, arsenic sludge with low acid, aqueous sludge/arsenic/hydrochloric acid from production, etch cleaning of arsenic and/or phosphoric contaminated parts, copper/arsenic debris, etch bench waste, IPA/H₂O, copper sulfate acidic, acid contaminated solid waste, metal binders containing arsenic, copper sulfate, acetone/methanol/isopropyl alcohol, aqueous sludge/arsenic and cloth paper/photo resist/acetone.

Tank Assessments

Epiworks was unable to provide for review tank assessment documentation for its five bulk storage tanks.

Visual Site Inspection

I was accompanied by Mr. Dickinson during the VSI portion of the inspection. The areas of the Epiworks facility that I inspected included, but was not limited to: building 1604-shop area (etch room, 90-day storage area, bulk storage tank area, satellite accumulation area, universal waste lamp storage area, used oil storage) and in building 1606 where clean rooms/satellite accumulation area are located.

The following is a summary of information obtained while touring the above areas.

The tour began in the etch room located in building 1604, where equipment parts are cleaned (Photograph 1).

Next, we proceeded to the 90-day storage area, where I observed three 55-gallon containers of copper sulfate hazardous waste and one 55-gallon container of arsenic solid waste (Photographs 2 and 3). The containers were not marked with hazardous waste labels or accumulation start dates. Mr. Dickinson stated that Epiworks stopped putting hazardous waste labels on the containers since Biodine (the transporter) affixed hazardous waste labels to the containers when they pick them up for transport off-site. I informed Mr. Dickinson that the generator regulations state that hazardous waste labels must be affixed to containers as soon as they are stored in the 90-day hazardous waste storage area, and must include the date the drum became full.

We proceeded to the P-Trap neutralization bench where copper sulfate waste is generated (Photograph 4) and then to the satellite accumulation area where I observed one 135-gallon container of arsenic contaminated solid waste, one 55-gallon containers of arsenic contaminated solid waste, one 55-gallon container of IPA/H₂O waste, one 55-gallon container of acid contaminated solid waste, one 55-gallon container of solvent contaminated waste and one 55-gallon container of copper/arsenic debris (Photograph 5). All above containers had written descriptions of their contents on the container.

After inspecting the satellite accumulation area I began to inspect the bulk storage tanks which were located directly behind the satellite accumulation containers. There were five unlabeled hazardous waste bulk storage tanks containing arsenic contaminated aqueous waste (Photographs 6 through 10). There were one 400-gallon, three 225-gallon and one 150-gallon bulk storage tanks.

We then proceeded to clean rooms 1 and 2. I observed one 15-gallon satellite accumulation container of acid contaminated solid waste, one 15-gallon satellite accumulation container of solvent contaminated solid waste and one 15-gallon satellite accumulation container of contaminated solid waste located directly outside of clean room 1. I observed one 55-gallon satellite accumulation container of arsenic contaminated aqueous waste near clean room 2. The 15-gallon containers of waste are generated from clean rooms 1 and 2. The 55-gallon container of waste is generated from the cleaning bench in clean room #1 (Photographs 11 and 12). All containers were closed and labeled with a description of their contents.

We then proceeded back to building 1604 to the used oil storage area where I observed a one gallon container holding a very small amount of used oil. There was also another one-gallon

container storing ½ gallon of used oil (Photograph 13). The container was labeled waste oil instead of used oil, but immediately changed to read “used oil” at the time of the inspection (Photograph 14). Mr. Dickinson then explained that the used oil is mixed with the solvent waste for disposal. Epiworks generates appropriately 10gallons of used oil per year.

We proceeded to the universal waste storage area where I observed three unlabeled and open containers of waste lamps and twelve loose lamps (Photograph 15).

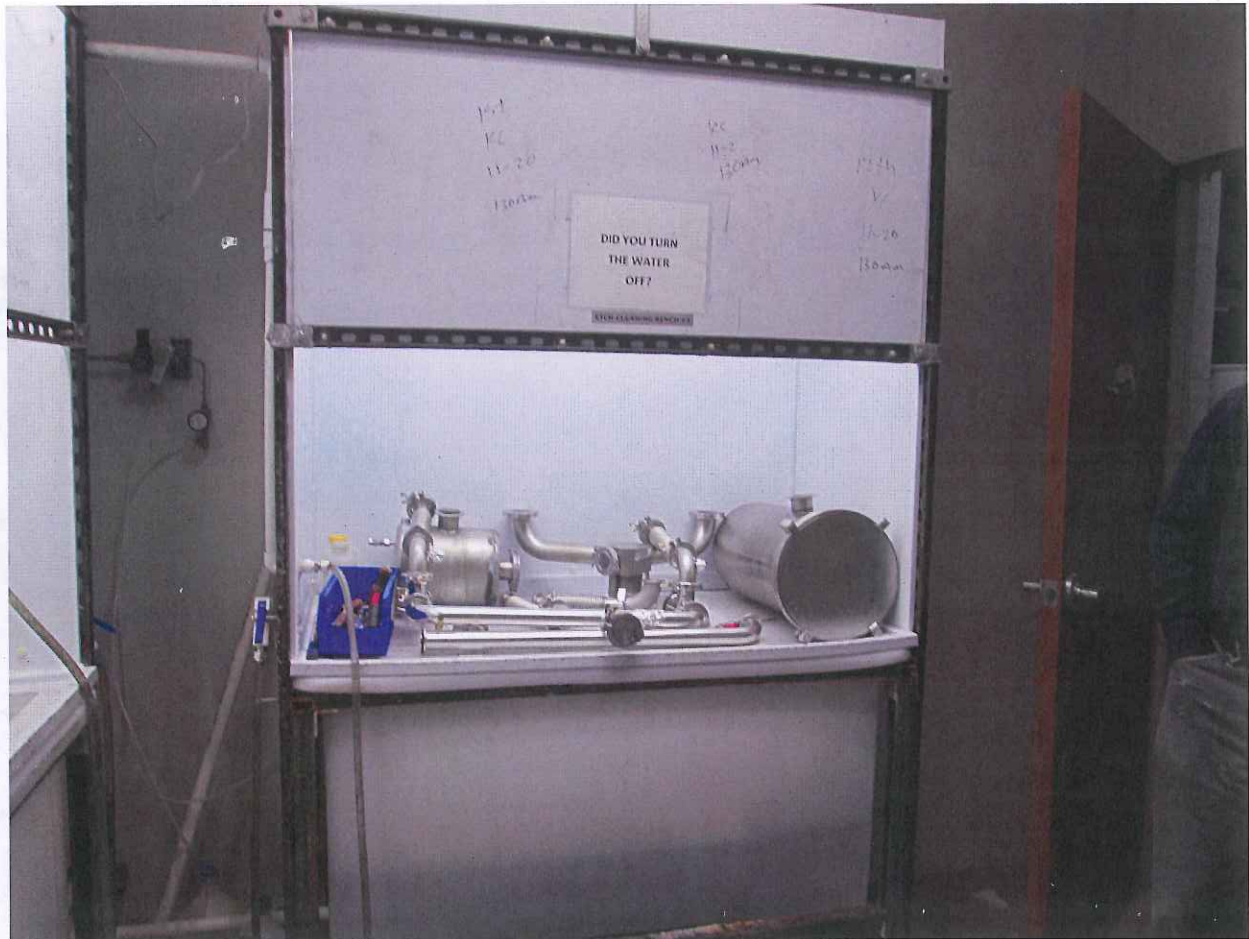
I observed fire extinguishers and eyewash stations throughout the facility.

Closing Conference

In closing, a conference was held with Mr. Dickinson. I summarized where I had been taken during the RCRA portion of the VSI and what information Mr. Dickinson presented to me. I thanked Mr. Dickinson for his cooperation and concluded the CEI at approximately 2:00 p.m.

Attachments

Inspection Checklist
Photographs 1 and 15



PHOTOGRAPH: 1

NAME OF PHOTOGRAPHER:

Sheila Burrus

DATE OF PHOTOGRAPH:

November 20, 2015

LOCATION OF PHOTOGRAPH:

Etch Room

SCENE BEING PHOTOGRAPHED:

Etch Cleaning Bench (Parts)

SITE LOCATION:

1606 Rion Drive
Champaign, IL 68122

INSTALLATION NAME:

Epiworks, Inc.

INSTALLATION I.D. #

ILR000103317



PHOTOGRAPH: 2

NAME OF PHOTOGRAPHER:

Sheila Burrus

DATE OF PHOTOGRAPH:

November 20, 2015

LOCATION OF PHOTOGRAPH:

90-day hazardous waste storage area (Building 1604-Shop Area)

SCENE BEING PHOTOGRAPHED:

no haz. waste labels or dates on three 55-gallon
containers of copper sulfate waste/one 55-gallon
container of arsenic solid waste

SITE LOCATION:

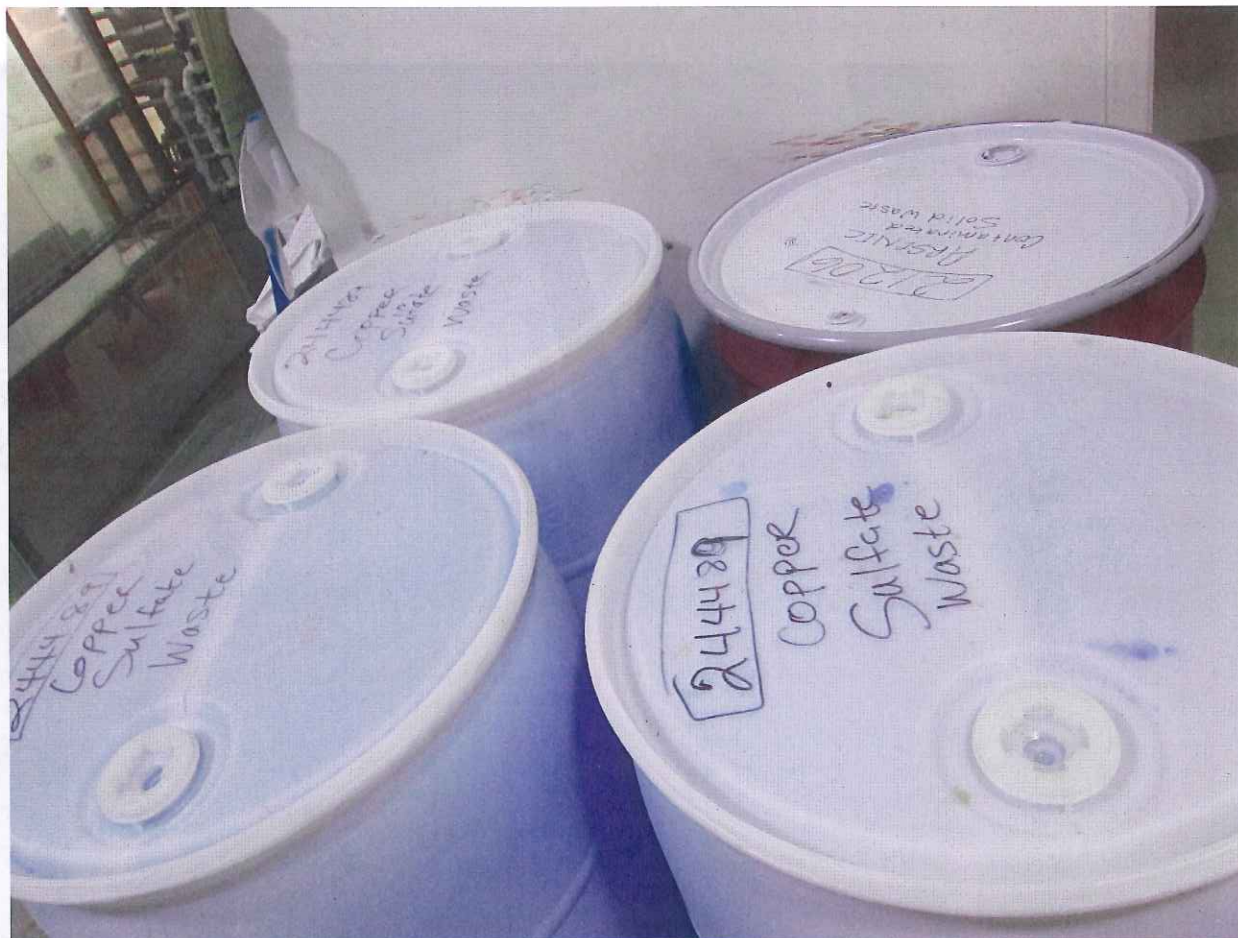
1606 Rion Drive
Champaign, IL 68122

INSTALLATION NAME:

Epiworks, Inc.

INSTALLATION I.D. #

ILR000103317



PHOTOGRAPH: 3

NAME OF PHOTOGRAPHER:

Sheila Burrus

DATE OF PHOTOGRAPH:

November 20, 2015

LOCATION OF PHOTOGRAPH:

90-day hazardous waste storage area (Building 1604-shop area)

SCENE BEING PHOTOGRAPHED:

no haz. waste labels or dates on three 55-gallon
containers of copper sulfate waste/one 55-gallon
container of arsenic solid waste

SITE LOCATION:

1606 Rion Drive
Champaign, IL 68122

INSTALLATION NAME:

Epiworks, Inc.

INSTALLATION I.D. #

ILR000103317



PHOTOGRAPH: 4	
NAME OF PHOTOGRAPHER:	Sheila Burrus
DATE OF PHOTOGRAPH:	November 20, 2015
LOCATION OF PHOTOGRAPH:	90-day hazardous waste storage area (Building 1604-Shop Area)
SCENE BEING PHOTOGRAPHED:	P-Trap Neutralization Bench
SITE LOCATION:	1606 Rion Drive Champaign, IL 68122
INSTALLATION NAME:	Epiworks, Inc.
INSTALLATION I.D. #	ILR000103317



PHOTOGRAPH: 5

NAME OF PHOTOGRAPHER:

Sheila Burrus

DATE OF PHOTOGRAPH:

November 20, 2015

LOCATION OF PHOTOGRAPH:

Satellite Accumulation Area (located directly across from 90-day hazardous waste storage area)

SCENE BEING PHOTOGRAPHED:

one 135-gallon container of arsenic contaminated aqueous acidic waste

one 55-gallon containers of arsenic solid waste

one 55-gallon container of IPA&H₂O

one 55-gallon container of acid contaminated solid waste

55-gallon solvent contaminated solid waste

55-gallon copper/arsenic debris

SITE LOCATION:

1606 Rion Drive

Champaign, IL 68122

INSTALLATION NAME:

Epiworks, Inc.

INSTALLATION I.D. #

ILR000103317



PHOTOGRAPH: 6
NAME OF PHOTOGRAPHER: Sheila Burrus
DATE OF PHOTOGRAPH: November 20, 2015
LOCATION OF PHOTOGRAPH: (Hazardous Waste Bulk Storage Tanks) directly behind satellite accumulation area
SCENE BEING PHOTOGRAPHED: unlabeled five bulk arsenic aqueous hazardous waste storage tanks (one 400-gallon, three 225-gallon and one 150-gallon)
SITE LOCATION: 1606 Rion Drive
Champaign, IL 68122
INSTALLATION NAME: Epiworks, Inc.
INSTALLATION I.D. #: ILR000103317



PHOTOGRAPH: 7

NAME OF PHOTOGRAPHER:

Sheila Burrus

DATE OF PHOTOGRAPH:

November 20, 2015

LOCATION OF PHOTOGRAPH:

Hazardous Waste Bulk Storage Tanks (directly behind satellite accumulation area)

SCENE BEING PHOTOGRAPHED:

unlabeled bulk arsenic contaminated aqueous hazardous waste storage tanks

SITE LOCATION:

1606 Rion Drive
Champaign, IL 68122

INSTALLATION NAME:

Epiworks, Inc.

INSTALLATION I.D. #

ILR000103317



PHOTOGRAPH: 8
NAME OF PHOTOGRAPHER: Sheila Burrus
DATE OF PHOTOGRAPH: November 20, 2015
LOCATION OF PHOTOGRAPH: Hazardous Waste Bulk Storage Tanks (directly behind satellite accumulation area)
SCENE BEING PHOTOGRAPHED: unlabeled bulk arsenic contaminated aqueous hazardous waste storage tanks
SITE LOCATION: 1606 Rion Drive
Champaign, IL 68122
INSTALLATION NAME: Epiworks, Inc.
INSTALLATION I.D. # ILR000103317



PHOTOGRAPH: 9

NAME OF PHOTOGRAPHER:

Sheila Burrus

DATE OF PHOTOGRAPH:

November 20, 2015

LOCATION OF PHOTOGRAPH:

Hazardous Waste Bulk Storage Tanks (directly behind satellite accumulation area)

SCENE BEING PHOTOGRAPHED:

Bulk Storage Tanks

SITE LOCATION:

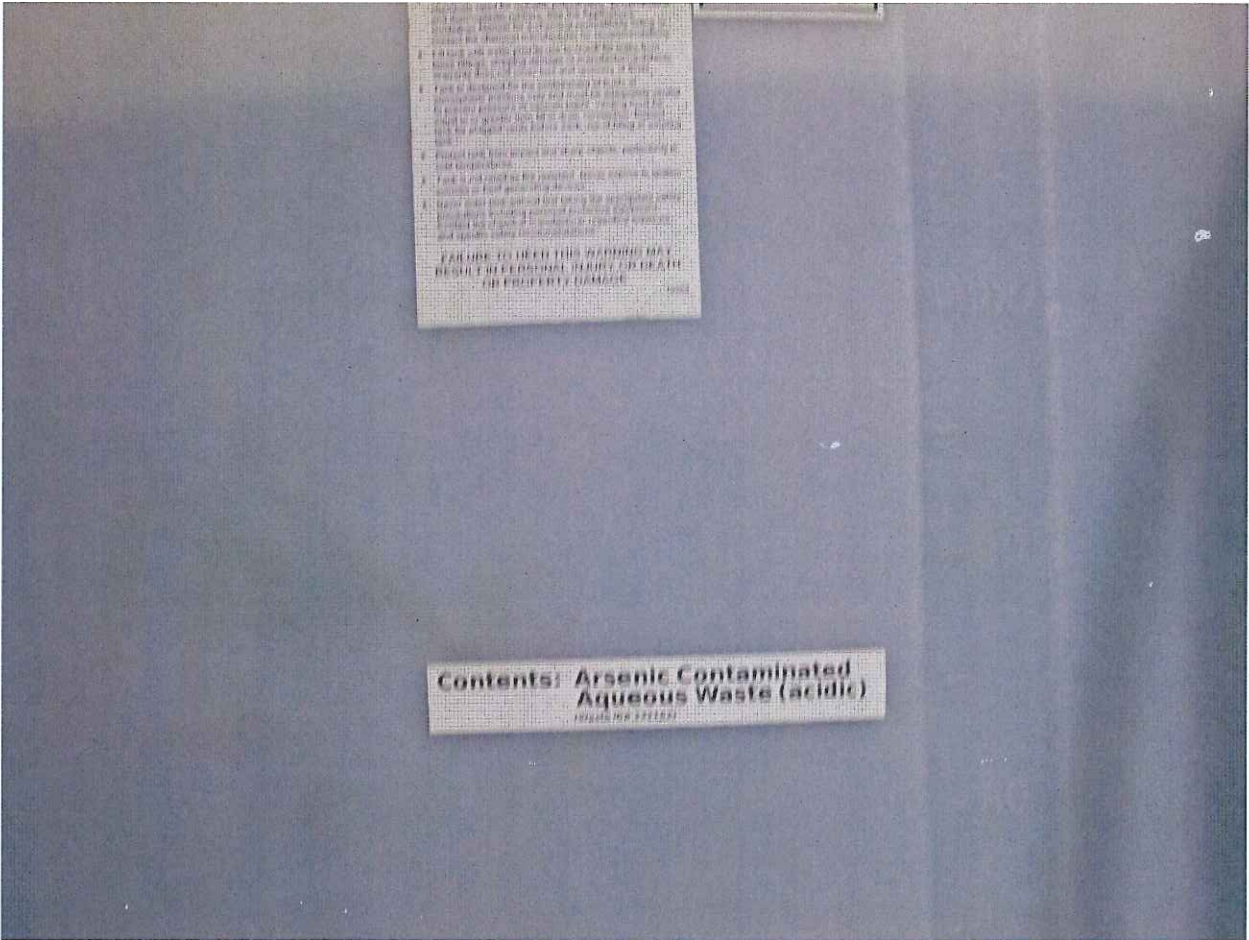
1606 Rion Drive
Champaign, IL 68122

INSTALLATION NAME:

Epiworks, Inc.

INSTALLATION I.D. #

ILR000103317



PHOTOGRAPH: 10

NAME OF PHOTOGRAPHER:

Sheila Burrus

DATE OF PHOTOGRAPH:

November 20, 2015

LOCATION OF PHOTOGRAPH:

next to satellite accumulation area

SCENE BEING PHOTOGRAPHED:

arsenic contaminated aqueous waste (description of waste on label of bulk storage tanks)

SITE LOCATION:

1606 Rion Drive
Champaign, IL 68122

INSTALLATION NAME:

Epiworks, Inc.

INSTALLATION I.D. #

ILR000103317



PHOTOGRAPH: 11

NAME OF PHOTOGRAPHER:

Sheila Burrus

DATE OF PHOTOGRAPH:

November 20, 2015

LOCATION OF PHOTOGRAPH:

Building 1606 (Clean Room #1)

SCENE BEING PHOTOGRAPHED:

one 15-gallon containers of acid contaminated solid waste
one 15-gallon containers of solvent contaminated solid waste

one 15-gallon containers of contaminated solid waste

SITE LOCATION:

1606 Rion Drive

Champaign, IL 68122

INSTALLATION NAME:

Epiworks, Inc.

INSTALLATION I.D. #

ILR000103317



PHOTOGRAPH: 12

NAME OF PHOTOGRAPHER:

Sheila Burrus

DATE OF PHOTOGRAPH:

November 20, 2015

LOCATION OF PHOTOGRAPH:

Building 1606 (near clean room #1)

SCENE BEING PHOTOGRAPHED:

55-gallon container of arsenic contaminated aqueous waste

SITE LOCATION:

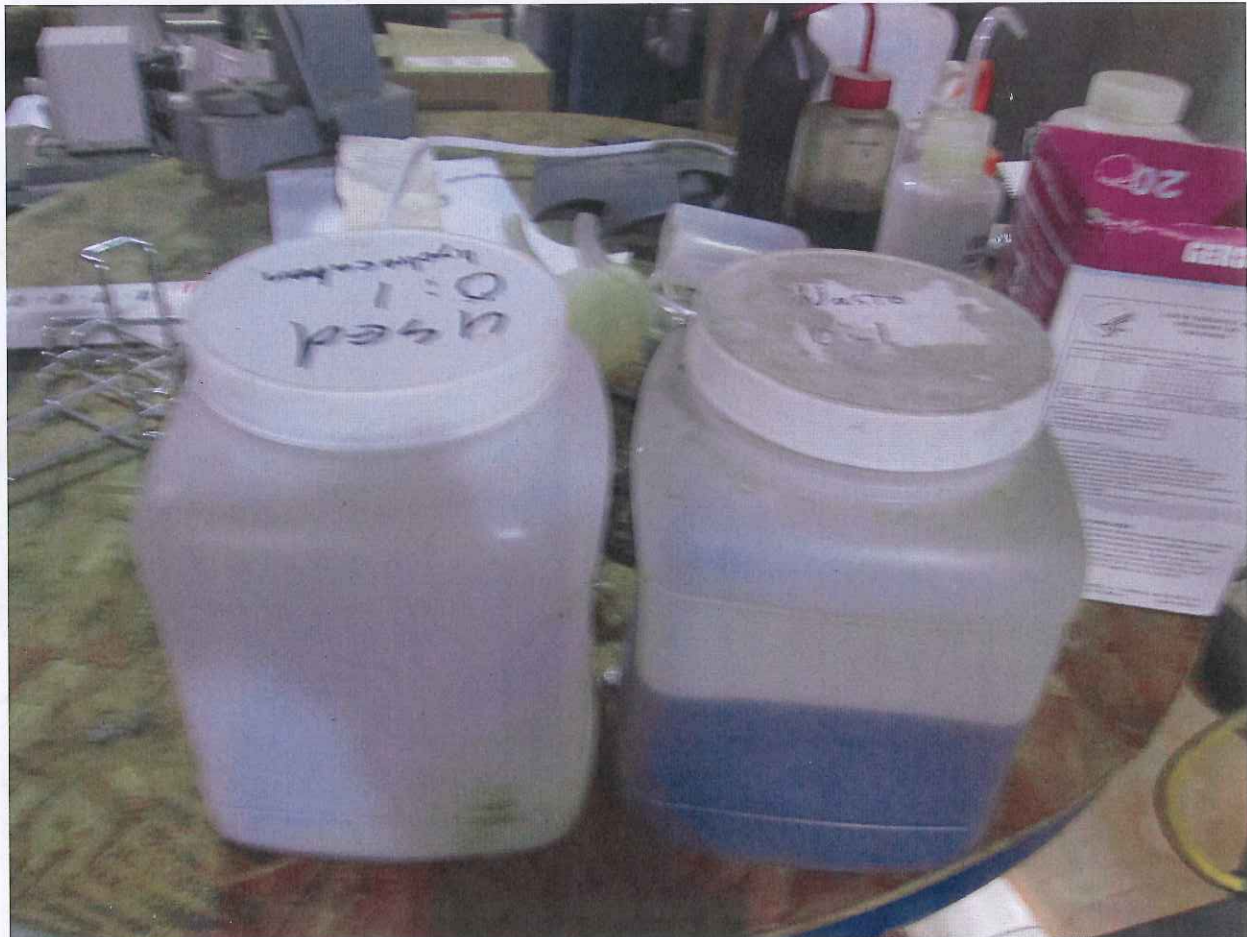
1606 Rion Drive
Champaign, IL 68122

INSTALLATION NAME:

Epiworks, Inc.

INSTALLATION I.D. #

ILR000103317



PHOTOGRAPH: 13

NAME OF PHOTOGRAPHER:

Sheila Burrus

DATE OF PHOTOGRAPH:

November 20, 2015

LOCATION OF PHOTOGRAPH:

Shop Area

SCENE BEING PHOTOGRAPHED:

one gallon container holding very small amount of used
oil (lid labeled used oil)

one gallon container holding $\frac{1}{2}$ gallon of used oil
(lid labeled waste oil)

SITE LOCATION:

1606 Rion Drive
Champaign, IL 68122

INSTALLATION NAME:

Epiworks, Inc.

INSTALLATION I.D. #

ILR000103317



PHOTOGRAPH: 14

NAME OF PHOTOGRAPHER: Sheila Burrus

DATE OF PHOTOGRAPH: November 20, 2015

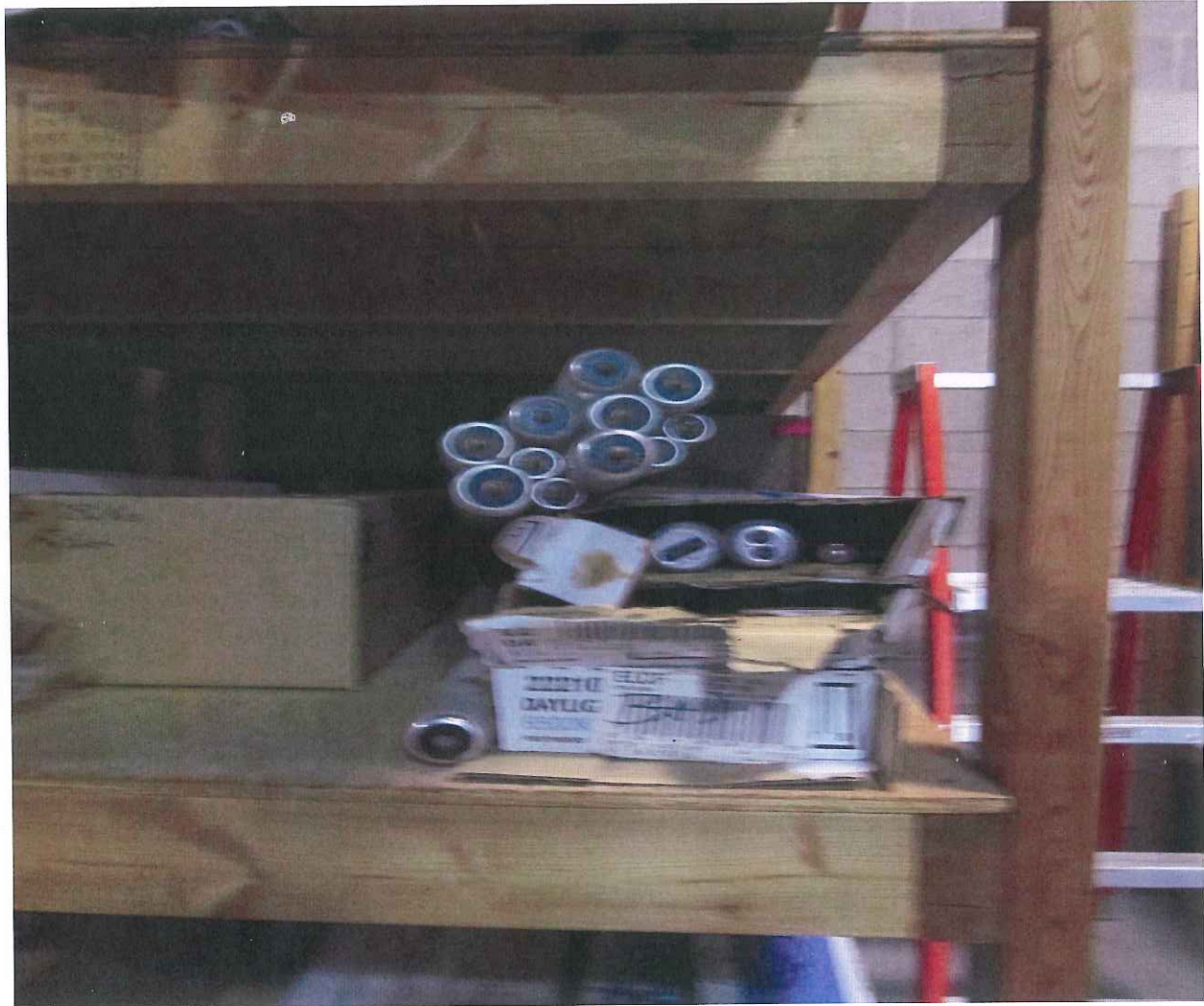
LOCATION OF PHOTOGRAPH: Shop Area

SCENE BEING PHOTOGRAPHED: one gallon container holding very small amount of used oil (lid labeled used oil)
one gallon container holding ½ gallon of used oil (lid was changed to used oil)

SITE LOCATION: 1606 Rion Drive
Champaign, IL 68122

INSTALLATION NAME: Epiworks, Inc.

INSTALLATION I.D. # ILR000103317



PHOTOGRAPH: 15

NAME OF PHOTOGRAPHER:

Sheila Burrus

DATE OF PHOTOGRAPH:

November 20, 2015

LOCATION OF PHOTOGRAPH:

Universal Waste Storage Area

SCENE BEING PHOTOGRAPHED:

three unlabeled/opened containers of waste lamps

12 loose waste lamps not in container

SITE LOCATION:

1606 Rion Drive

Champaign, IL 68122

INSTALLATION NAME:

Epiworks, Inc.

INSTALLATION I.D. #

ILR000103317

